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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,040

03/28/2006

Toshirou Ariga

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EXAMINER

JOY, DAVID J

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,040	Applicant(s) ARIGA ET AL.	
	Examiner David J. Joy	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because in Line 11 the abstract recites “a radical polymerizable oligomer (B1), having ... and *being compatibility with* the non-polymerizable thermoplastic resin (A)” (emphasis added). Correction is required. See MPEP § 608.01(b).
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claim 1 is objected to because of the following informalities: in Line 16 the claim recites “a radical polymerizable oligomer (B1) ... having ... and *being compatibility with* the non-polymerizable thermoplastic resin (A)” (emphasis added). Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-7 are rejected under 35 U.S.C. 102(a) as being anticipated by the International Application Publication of Ariga et al. (WO 2004/002752 A1; hereinafter “Ariga”). For the purposes of this Office Action, all citations will be made to the European Patent Application of Ariga et al. (EP 1 552 961 A1) as an English equivalent of the International Application Publication.

7. Ariga teaches a hydraulic transfer film having a supporting film (“substrate film”) made of a water-soluble or water-swellaable resin, and a transfer layer that is soluble in organic solvent positioned on top of the supporting film (see Abstract; see also ¶¶ [0010] and [0013]). Ariga also teaches that the transfer film has a release film (“peelable film”) that is on top of the transfer layer at an interface with the transfer layer (see Abstract; see also ¶¶ [0010], [0063] and [0064]). With regard to the transfer layer, Ariga recites that the transfer layer includes a curable resin layer that is curable by irradiation with an active energy beam and a decorative layer that contains an ink or a coating film (see Abstract; see also ¶¶ [0010], [0016], [0057] and [0058]). Additionally, the curable resin layer is non-adhesive at room temperature, and the layer contains a non-polymerizable thermoplastic resin (“thermoplastic resin”) and a radical polymerizable oligomer (“radiation-curable resin”) that is compatible with the thermoplastic resin (see ¶¶ [0018], [0019]). Further, Ariga teaches that the radiation-curable resin can be an epoxy acrylate, polyester acrylate, or a urethane acrylate, and that the resin has a mass average molecular weight of 300 to 10,000 (see ¶¶ [0025] – [0026]). As for the thermoplastic resin, Ariga teaches that the resin is compatible with the radiation-curable resin and that the resin can be an acrylic resin or a polyester resin, and that the resin has a mass-average molecular weight from 3,000 to 400,000 (see ¶¶ [0038]-[0042]). Though Ariga recites that the molecular weights are mass-average

molecular weights, the measurements are anticipatory of the ranges that are claimed for the weight-average molecular weights of the claimed resin components.

8. Ariga teaches that the thermoplastic resin is added in the amount of less than 70 parts by weight based on the total weight of the resin in the curable resin (see ¶ [0038]). Therefore, as Ariga provides that the thermoplastic resin and the radiation-curable resin are both present in the curable resin layer, it follows that the combined weight of the two resin components can be such that they account for at least 60% by weight of the curable resin layer. Ariga also teaches that in addition to the thermoplastic resin and the radiation-curable resin, the curable resin layer can also contain a polymerizable compound ("thermosetting resin") (see ¶ [0018]). Ariga further teaches that thermosetting resin can be such that it is of the same type of resin as the radiation-curable resin, which includes a resin having a mass average molecular weight of 300 to 10,000, which includes the limitation that the compound has a molecular weight of at least 200 but less than 700 (see ¶ [0044]). Finally, Ariga teaches that the transfer film can be used to produce a hydraulically transferred body with a cured resin layer (see ¶ [0079]).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,309,734	10/2001	Taniguchi et al.
US 4,337,289	06/1982	Reed et al.

10. The information disclosure statement, dated March 28, 2006, cites to the Japanese Application Publication of Dainippon Ink & Chemicals, Inc. (2003-200698A) as a standalone reference that anticipates Claims 1-5 and 7, and is a primary reference that suggests a teaching of Claim 6. However, this reference was not relied upon due to the fact that it fails to teach a radical polymerizable oligomer consisting of one of the particular species claimed and having the claimed weight average molecular weight value.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Joy whose telephone number is (571)272-9056. The examiner can normally be reached on Monday - Friday, 7:00 AM - 3:30 PM EST.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie E. Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DJJ/
Examiner, Art Unit 1794
03/27/2008

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794